2015 Water Quality Report
Town of Davie Utilities Department
954-327-3742

Este informe contiene información importante acerca de su agua potable. Llame al 954-327-3742 para obtener una copia en español o ayuda para traducir el contenido de este reporte.

Director's Message

It is our pleasure to share with you the Annual Water Quality Report. We are committed to provide you with a safe and dependable supply of drinking water by continually improving our facilities, our infrastructures, our work processes and the capabilities of our employees. The Town's main objective is to effectively and efficiently provide high-quality water and utility customer service while maintaining compliance with all water and wastewater regulations. In order to do so, it is important to expand strategically in an environmentally conscientious manner towards our vision. Quality drinking water and sustainable water resource management are essential to the continued economic growth and development of our Town and our water customers. The Town expects significant growth from two major redevelopment areas located in the utility service area. Our focus is shared between the needs of the current generation and the protection of our water supply for generations to come.

We are pursuing water conservation on a few fronts such as Broward Water Partnership, public outreach and the expansion of water reuse in our community. Our public outreach efforts target educating our younger citizens by conducting facility tours, coordinating Drop Savers Poster Contest, participating in local events and promoting water conservation. The Town of Davie has aggressively pursued expansion of reclaimed or reuse water program. At this time, Nova Southeastern University and Grande Oaks Golf and Country Club make use of the daily, available, safe, non-potable water supply. Reuse water is used for landscape, golf course irrigation and industrial purposes, such as chiller plant make up water. Additionally, the Town of Davie Water Reclamation Facility uses reclaimed water for landscaping, toilet flushing and plant process water.

Our commitment to excellence has been recognized with the "2015 Utility of the Year in Broward County" awarded by Florida Water and Pollution Control Operators Association (FWPCOA).

I give you my pledge that we will continue improving our production and distribution system to ensure that our customers have superior water for generations to come. Let us continue "Making Davie Clean Through Green."

Town residents can learn more about the utilities department by visiting our webpage: http://www.davie fl.gov/Pages/DavieFL_UtiltyDpt/index

Regards, Don Bayler, Utilities Director

Contact Information

For more information or questions about this report, or to request a paper copy, please contact the Town's Utilities Department at (954)-327-3742.

Regular Town Council Meetings are held the first and third Wednesday of each month at 6:30 p.m. These are held at the Town Hall at 6591 Orange Drive. Open public session occurs at the beginning of the first council meeting of every month. Public Meeting Calendar is available at this link: http://www.davie-fl.gov/Pages/DavieFL_PubCalendr/ We encourage our valued customers to be informed about their water utility.

Compliance & Period Covered by Report

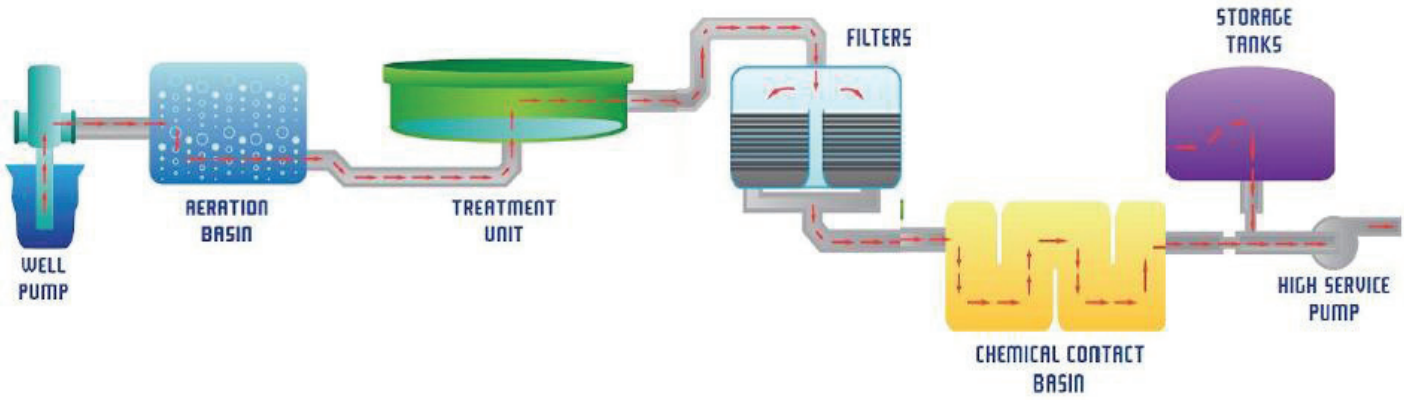
The Town of Davie is pleased to present you with this year's Annual Water Quality Report. This report contains important information about the Town's water source, water supply, treatment process and the contents of your drinking water and what they mean. The Town routinely monitors for contaminants in your drinking water according to federal and state laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1, 2015 to December 31, 2015. Data obtained before January 1, 2015 and presented in this report are from the most recent testing done in accordance with the laws, rules and regulations.

Water Source, Source Plans, and Treatment

Source of Water Supply

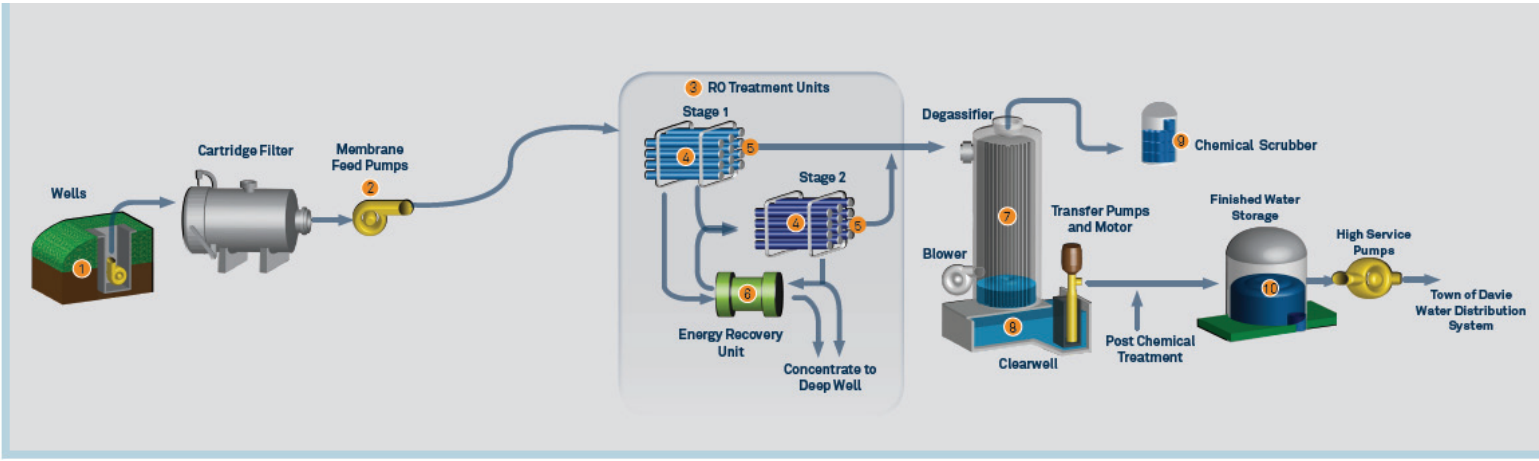
The Town of Davie System III Water Treatment Plant obtain its ground water from the Biscayne Aquifer, a shallow underground geologic formation where water is stored. Water is pumped from the wells to the water treatment plant which aerate, soften, filter, disinfect with sodium hypochlorite and fluoridate water from the wells and transmit treated water into a common distribution system (See schematic of System III below).

Town of Davie System III Treatment Process Diagram



The Town of Davie System V Water Treatment Plant obtains its ground water from the Floridan Aquifer, a deep underground geologic formation where water is stored. Water is pumped form the wells to the water treatment facility, where reverse osmosis membranes remove high concentration of salts and other contaminants. The water is then aerated, disinfected with sodium hypochlorite and fluoridated and transmitted into a common distribution system. (See schematic of System V diagram below).

Town of Davie System V Treatment Process Diagram



Source Water Assessment and Protection Program (SWAPP)

In 2015 the Florida Department of Environmental Protection (FDEP) performed a Source Water Assessment on our system. The assessment provides the utility with information about any potential sources of contamination in the vicinity of our wells. There are three (3) potential sources of contamination identified for our system with a low susceptibility level. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp.

Lead

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Town of Davie is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 800-426-4791 or at http://www.epa.gov/safewater/lead.

2015 Water Quality Table

Microbiological Contaminants

Contaminant (Unit of Measurement)	Dates of sampling (mo./yr.)	MCL Violation Y/N	Highest Monthly Percentage	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria (Monthly percentage)	01/15-12/15	N	4.2	0	For systems collecting at least 40 samples per month: presence of coliform bacteria in >5.0% of monthly samples.	Naturally present in the environment

Radioactive Contaminants

Contaminant (Unit of Measurement)	Dates of sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Uranium (µg/L)	7/14	N	0.131	0.115 - 0.131	0	30	Erosion of natural deposits

Inorganic Contaminants

Contaminant (Unit of Measurement)	Dates of sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Arsenic (ppb)	07/14	N	0.73	ND - 0.73	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	07/14	N	0.004	ND - 0.0040	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Cyanide (ppb)	07/14	N	6.3	ND - 6.3	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride (ppm)	01/15-12/15	N	0.83	0.37-0.83	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at the optimum level of 0.7 ppm
Nitrate (as Nitrogen) (ppm)	04/15	N	0.058	0.036-0.058	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen) (ppm)	04/15	N	0.44	ND – 0.44	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	07/14	N	98.7	33.9 - 98.7	N/A	160	Salt water intrusion, leaching from soil

Disinfectant and Disinfection By-Products

Disinfectant or Contaminant (Unit of Measurement)	Dates of sampling (mo./yr.)	MCL or MRDL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chloramines (ppm)	01/15-12/15	N	3.42	2.62-3.99	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	3/15, 5/15, 8/15, 11/15	N	6.78	0.61 - 7.2	N/A	MCL = 60	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	3/15, 5/15, 8/15, 11/15	N	4.51	0.25 – 0.56	N/A	MCL = 80	By-product of drinking water disinfection

Lead and Copper (Tap Water)

Contaminant (Unit of Measurement)	Dates of sampling (mo./yr.)	AL Exceeded (Y/N)	90th Percentile Result	No. of sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper (tap water) (ppm)	05/15	N	0.055	0 out of 85	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	05/15	N	7.1	6 out of 85	0	15	Corrosion of household plumbing systems; erosion of natural deposits

Secondary Contaminants

Contaminant (Unit of Measurement)	Dates of sampling (mo./yr.)	MCL Violation Y/N	Highest Result	Range of Results	MCLG	MCL	Likely Source of Contamination
Color (color unit)	08/15, 09/15, 10/15, 11/15, 12/15	Y	30	4-30	NA	15	Naturally occurring organics

Note: The Town of Davie was in violation of the secondary maximum contaminant level for color in August 2015 because the color removal unit was taken out of service for emergency repair.

Terms and Abbreviations

In the 2015 Water Quality table below, you may find unfamiliar terms and abbreviations. To help you better understand these terms we've provided the following definitions:

Maximum Contaminant Level or MCL: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal or MCLG: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Locational Running Annual Average (LRAA): the average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

Maximum residual disinfectant level or MRDL: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum residual disinfectant level goal or MRDLG: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

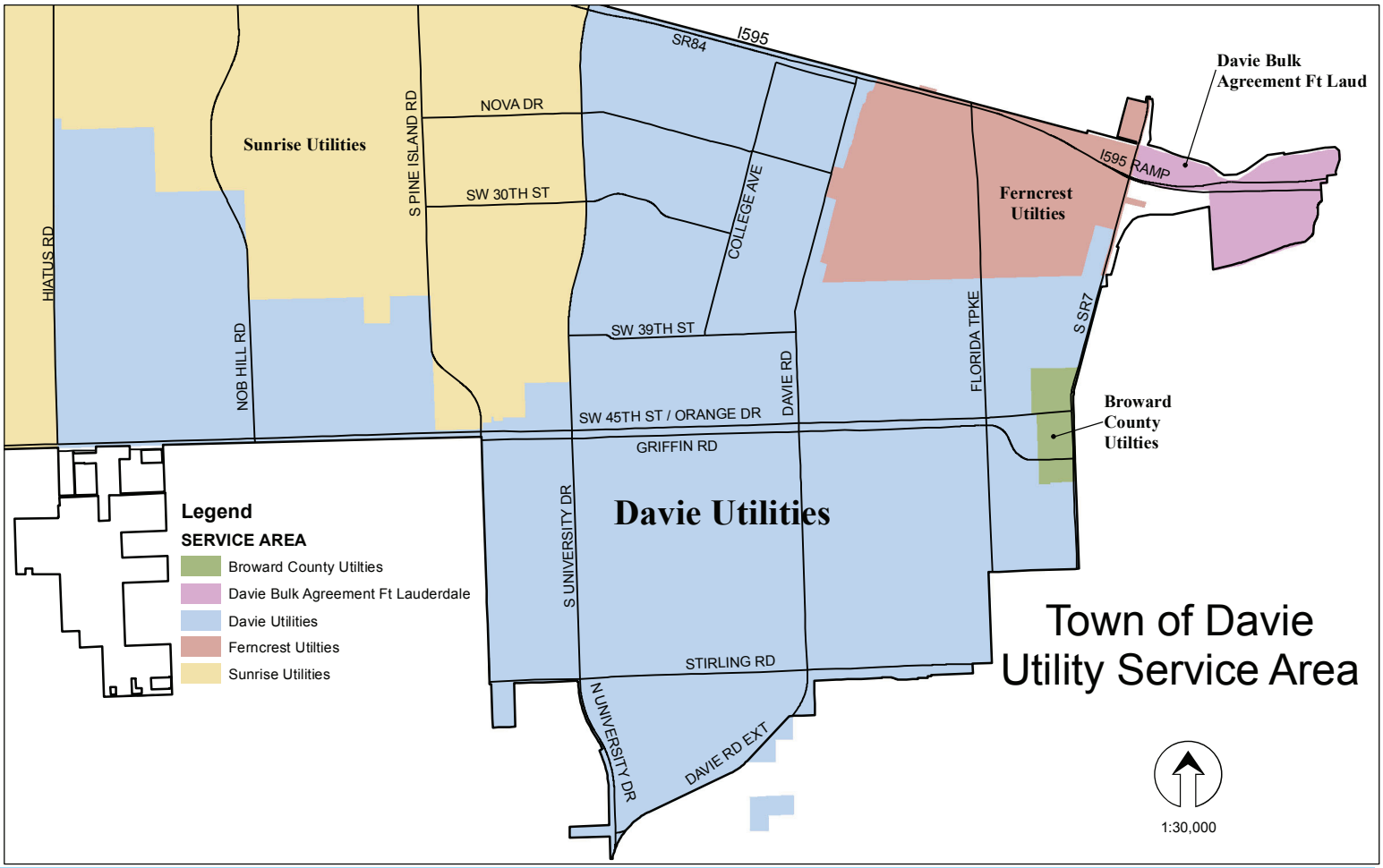
"ND" means not detected and indicates that the substance was not found by laboratory analysis.

"NA" means not applicable

Parts per billion (ppb) or Micrograms per liter (µg/l): one part by weight of analyte to 1 billion parts by weight of the water sample.

Parts per million (ppm) or Milligrams per liter (mg/l): one part by weight of analyte to 1 million parts by weight of the water sample.

Picocurie per liter (pCi/L): measure of the radioactivity in water.



General Drinking Water Information

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

(A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

(B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

(C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

(D) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

(E) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

For Customers with Special Health Concerns

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline, 800-426-4791.

Public Outreach and Education

Division 1
Levi Coalla
Nova Blanch Forman Elementary

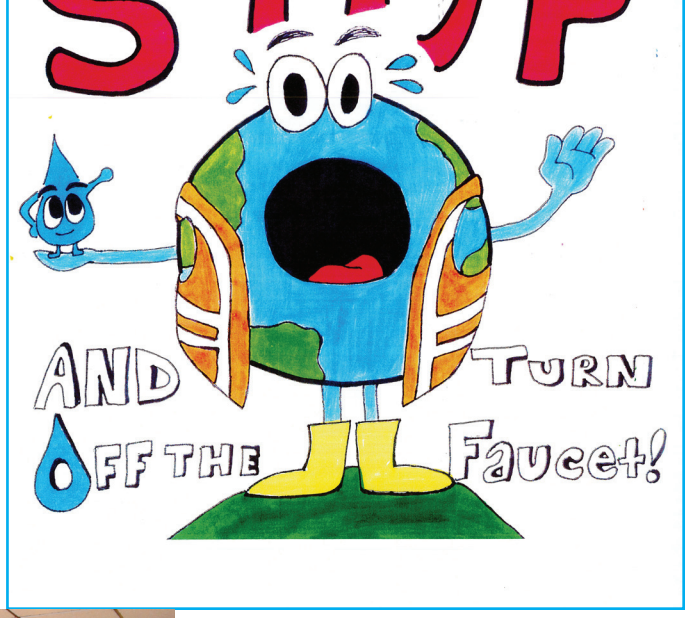
Drop Saver's Poster Contest

The Town is proud to announce the winners of the annual "Drop Saver's" poster contest. The program fosters the importance of water conservation through long range education and awareness. What better way to preserve our precious resource than with our young citizens. The students were recognized at a Town Council Meeting.

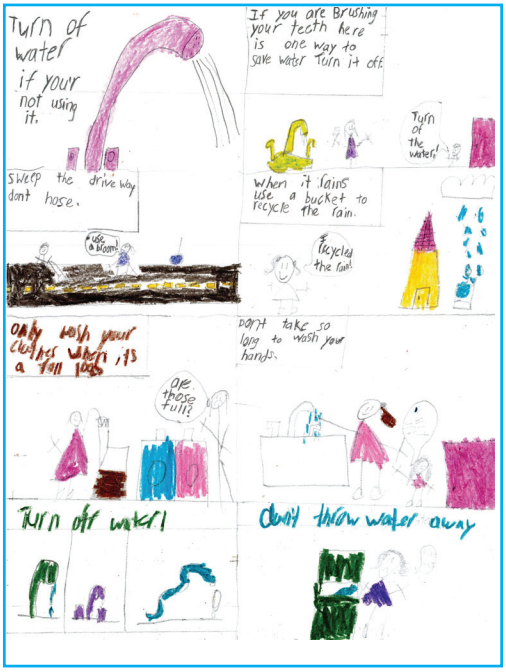
Special mention to Sarena Ireland St. Michael who also won Division 5-2nd place at the State level.

Division 3
Avah Spalding
Sommerset Academy

Division 4
Carolina Montealegre
Nova Middle School



Division 5
Sarena Ireland-St Michael
Nova High School



Division 2
Nayeli Sagastume-Bonilla
Davie Elementary